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Intelligence of the past: Utah's
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INTRIGUE OF THE PAST

UTAH'S ARCHAEOLOGY EDUCATION PROGRAM

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December 1990

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Management Summary

An archaeology education program sponsored by the Interagency Task Force on Education and implemented by Utah BLM has resulted in a curriculum booklet for teachers of fourth through seventh graders, two teacher training workshops, and funding from the Task Force and BLM Washington office to expand the program. Additionally, BLM and the Utah Museum of Natural History jointly proposed a Teacher Institute for teachers from around the state; the Utah Endowment for the Humanities awarded a grant for \$10,000 to help fund the Institute. Teachers from the Institute will conduct workshops for their peers in their home districts with the assistance of archaeologists, who will be trained as facilitators this year. A secondary level curriculum will also be prepared in the upcoming year.

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Introduction and Background

Thieves of time, hikers, vandals, heritage desecrators, tourists, robbers, arrowhead collectors, criminals, Boy Scouts. Many types of people contribute to the loss of information about past cultures. They differ in their motivations and awareness of the results of their actions. The staunch defender of the right to dig and collect artifacts, vandals, and those involved in illegal trafficking in antiquities are the purview of law enforcement. The majority of people, including casual collectors and those who incidentally encounter sites while recreating are generally uninformed about the issues and laws regarding preservation of the past, and it is they whom education must reach.

The fault for the general lack of understanding about cultural resources on the part of the general public lies in many quarters, but the issue today is saving a vanishing resource, not fixing blame. If we are to have data from which to learn lessons of the past, a fundamental change in how the public views and cares for archaeological sites is necessary. What we are really talking about is cultivating an ethic of appreciation for cultural resources and the heritage of American Indians.

This paper describes an education program aimed at a segment of the general public, school children in the fourth through seventh grades. The process of developing the program, including its philosophy and characteristics, and its current status are outlined below.

In April of 1988, the Interagency Task Force on Cultural Resources signed a Memorandum of Understanding, agreeing to cooperatively address the problem of vandalism to archaeological sites. The Task Force is comprised of the Utah divisions of the Bureau of Land Management, U.S. Forest Service, National Park Service, and the State of Utah. Public Education is one of the four

emphases of the Task Force. In June 1988, I submitted a proposal for implementing an education program to Kemp Conn, then Associate State Director and BLM's representative to the Task Force. With modification and input from other BLM archaeologists, the proposal was accepted and the Task Force allocated funding to hire an educator part-time to work with me. Forest Service provided the actual funds, which turned out to cause a series of hurdles for hiring that at times seemed insurmountable. Finally, Danielle Paterson was hired and we began working in mid-January, 1990. A third member of the team is Jeanne Moe, an archaeologist working in Utah's State Office, Law Enforcement Division; she also has a background in education.

The Process

The Beginning - Goals, Schedule, Networking

After a brief orientation, we sequestered ourselves for nearly three days with a flipchart. We brainstormed, defining our goals and intentions for the education program, and outlining a general schedule for our tasks. While this process took a fair amount of time, it proved invaluable in building a team spirit and consensus, and in giving us good direction from the beginning.

Part of this process was identifying who our interested parties were, and whose experience could benefit us. We contacted these people, sent them copies of our goals and schedule, and solicited their feedback. Interested parties included archaeologists, members of the Task Force, American Indians, teachers, BLM's Phoenix Training Center, those working in environmental education, amateur archaeologists, and educators. Their affiliations ranged from universities to the State Office of Education and government agencies. Involving interest groups from the beginning was a sound investment, as many people provided us with support, information and opportunities to expand our program. Diversity in the team's backgrounds also proved

valuable in this exercise because we were connected to different networks of people.

The goals we identified are:

1. To instill in school children an understanding and ethic of appreciation for cultural resources, in order to gain their future participation in site conservation.
2. To teach understanding and appreciation for the similarities and differences in the human experience. Archaeology is a method for studying cultures and how they change through time.
3. To enrich the individual with an understanding of his/her place in the context of the entire human experience.
4. To show how humans affect the natural world and how in turn humans are effected by their environment, now and throughout prehistory.
5. To develop a program that is readily and easily usable by teachers, so that a majority of school children will be reached.

Needs Assessment

A premise of the education program is that the most efficient and effective strategy to reach Utah's 445,000 school-aged children is through their teachers. It is not a wise use of our energies and resources to attempt to contact students ourselves; the daunting task of visiting each classroom once would consume many full-time employees. Besides, one hour in twelve years is not enough to give students the understanding they need to act responsibly toward archaeological issues. Our first two questions, then, were "What resources do teachers already have?" and "What do teachers need?"

We compiled a collection of archaeology education programs nationwide, a listing of organizations providing training to teachers and students, and resources such as films and teaching kits, speakers, and opportunities for

involvement in archaeology. (This later became a Resource Guide for Teaching Archaeology which we provide to teachers.) All were analyzed according to our stated goals, especially Goal 5 - is the program being widely and effectively used?

We determined that each of the programs had some merit, and most were reaching some fraction of their intended audience. Many of the teacher training programs were costly, and all required a good deal of preparation for the teacher to implement. Characteristically, training programs enrich the teacher personally, but a good framework of important concepts to teach and exciting ways to teach them are lacking. Only a very motivated teacher will tackle new subject material in a comprehensive way, and teacher understanding is still one step removed from student understanding. We also realized that these programs probably do not reach more than one-tenth of one-percent of Utah's 18,000 teachers. Conclusion: the currently available archaeology education programs will not meet our need to instill basic concepts about the past and about site conservation in every future jury-sitting, taxpaying, recreating adult. These ideas take time to develop as the student matures, and they require repetition. Teachers equipped with the resources they need to teach these ideas are the rare exception.

Our challenge, then, is to co-opt teachers into allocating enough time in the classroom for teaching concepts about cultural resources. Additionally, we need the majority of teachers' help, not just that fraction who has a keen interest in archaeology.

Limitations and Opportunities

Perhaps the major limitation to instituting an archaeology education program is that teachers already have a schedule brimming over with topics they must teach in addition to the traditional subjects, among them drug and sex

education, self-esteem, and safety. There is a great deal of competition for a teacher's time and attention.

A second limitation is that most teachers have little, and more frequently, no background in archaeology or anthropology, both of which are seen as esoteric specialties. Almost everyone feels intimidated to take on a discipline that is completely new to them, to wade through volumes of professional literature and sieve out the essential concepts. Teachers are doubly impeded, because they must in turn translate what they have learned into meaningful lessons for kids. Only a highly motivated and atypical person will do this.

The Utah State Office of Education will not mandate that archaeology be taught, at least not in the foreseeable future (although they have agreed to endorse the curriculum we developed). The seemingly straightforward approach of mailing material to teachers rarely results in the material being used. Teachers already receive stacks of unsolicited materials on myriad subjects, and archaeology is a new subject that for most that would require a focused effort to teach. In sum, the majority of teachers are not able to devote the necessary time to learning a new subject, there is little opportunity to fit it into their schedule anyway, and most teachers do not have the keen interest in archaeology necessary to take it on as a teaching focus.

The limitations are formidable. We approached the limitations by analyzing how we could turn them into opportunities. We looked at teachers' needs as our opportunities, and discovered three primary areas where archaeology could capture some time on a teacher's schedule. The first area we analyzed was the state core curriculum which mandates topics teachers must teach for each grade level. We designed lessons to help teachers teach the core requirements and compiled a listing of our lessons and their correlation with state core requirements.

Secondly, what constitutes "teacher-friendly" materials? Teachers work from lesson plans; a good lesson includes clearly-stated and measurable objectives, background information in layman's terms, and readily-available materials and teaching aids. In short, lessons that do not require a lot of preparation are most likely to get used.

Finally, we looked at the prevailing concerns of educators today. Current trends include a regard for developing higher-order thinking skills such as scientific inquiry, problem solving, observation-inference, and cooperative learning, and developing such abilities as citizenship skills and community action. An integrated curriculum is another concern of educators - how can students be taught to think holistically, to link information from different subjects?

We concluded that a thoughtfully-constructed archaeology curriculum could meet educators' concerns and teachers' needs very well. One of the greatest strengths of archaeology is that it is an integrative, interdisciplinary field. Archaeologists take a scientific approach to studying human behavior. The questions archaeologists ask are rooted in the social sciences, and the methods used to answer those questions are largely scientific, based upon observation-inference, hypothesis testing, and data analysis. Archaeological problems are good vehicles for problem-solving using information from several topics.

The interdisciplinary nature of archaeology also means that there are many opportunities to infuse archaeology into the entire curriculum. Science, art, math, language arts, and history are all topics that archaeology can address. Problems in site preservation and different viewpoints on how sites and artifacts are to be managed provide excellent means to teach citizenship skills and problem analysis.

Perhaps the biggest asset of teaching with archaeology is that almost everyone seems to have a curiosity about the past, kids especially. Archaeology intrigues kids, and this makes it an exciting topic to teach, since teachers can easily capture kids' attention.

In sum, we believe there are many opportunities for teachers to use archaeology in their classroom without preempting other topics and without requiring extensive preparation. Well-designed lesson plans can help teachers teach what they have to teach anyway. Archaeology can offer them a fun and motivating alternative way of teaching it, or can provide an application of something they're studying. For example, when learning about plants and plant parts, a lesson on pollen analysis and its value to archaeologists shows an interesting and real-life application of understanding plants. Concrete examples help kids cement and remember what they've studied.

Project WILD as a Model

Another step in developing the archaeology education program was looking for a successful model - are there supplementary education programs that are successful in getting used in classrooms? We discovered that Project WILD has been exceptionally successful; in 1989 in Utah, over 1100 teachers attended WILD workshops. We contacted the local Project WILD coordinator at the Utah Division of Wildlife Resources (DWR) and their national coordinator in Boulder, Colorado.

Project WILD is an interdisciplinary supplementary environmental and conservation education program emphasizing wildlife for educators of kindergarten through high school age students. Their stated goal is "...to help people develop awareness, knowledge, skills and commitment to result in informed decisions, responsible behavior, and constructive actions concerning



wildlife and the environment" (An Introduction to Project WILD, 1986, Project WILD, Western Regional Environmental Education Council, Boulder, CO). I believe their goal to be parallel to that of the archaeology program, and "archaeology" could comfortably be substituted for "wildlife and the environment". Our education efforts are not trying to create more wildlife biologists or archaeologists, but rather we want to educate future advocates for responsible management of a resource, cultural and wildlife.

Developed by a consortium of wildlife interests, today WILD is implemented nationwide by a variety of entities, including fish and game agencies, environmental educators, and interest groups. The program is based upon a conceptual framework of topics. Two books for teachers were initially published, one for the primary level and one for secondary; subsequently a book focusing on aquatic life has been completed. The books contain lesson plans correlated to the entire standard curriculum. The lessons involve fun hands-on activities which require little preparation by teachers. Activities use readily-available materials, and they incorporate a variety of teaching and learning styles.

An especially important element in Project WILD's success is its credibility, achieved in large measure because it was developed collaboratively by educators and wildlife biologists (Daphne Sewing, DWR, personal communication, 1989). Lessons were first tested in classrooms, and the overall program was formally evaluated for effectiveness. Teachers are willing to use WILD materials because they know the information is accurate since wildlife biologists contributed to the program, and they know it is in their language and ready to implement in their classroom, since teachers also contributed.

Teachers get the WILD books for free, but must attend a workshop, for which they can earn credit useful in pay scale advancement and certification. WILD

insists on workshop attendance because they have found that workshops help teachers overcome intimidation they have at teaching a subject new to them, they can practice what they have learned in a safe supportive environment, they can ask questions of professionals, and they build a network of support among themselves. Utah Project WILD sustains teachers' interest and network links by publishing a newsletter several times a year. The newsletter includes information of local interest, current discoveries and projects, and activity adaptations or extensions. Teachers have the opportunity to submit their ideas and activities to the newsletter. This supports a tremendous interest in Project WILD, and keeps teachers using the lessons in their classrooms.

The Intrigue of the Past: Investigating Archaeology Curriculum

Based upon what we learned from our colleagues, the needs assessment, analysis of limitations and opportunities, and the proven elements of success of the Project WILD program, we developed an archaeology curriculum for 4th through 7th graders. The curriculum, titled Intrigue of the Past: Investigating Archaeology consists of 25 lesson plans, including worksheets, quizzes, illustrations, and four color photocopies to be used as teaching aids. The materials are in a 3-ring binder which teachers receive by attending a 10 hour workshop, hosted by the Utah Museum of Natural History. Teachers receive 1 credit hour for the workshop, and can earn a half credit for every four lessons they formally pilot test.

Two other characteristics of the curriculum deserve mention: American Indian perspective and values development. We felt very strongly that teaching the prehistory of Utah is also teaching the cultural heritage of American Indians. We wanted to be sensitive to their concerns and offer them the opportunity to have their perspective presented. We acquired a contact in each of Utah's seven Indian tribes, and had discussions with others prominent in the Indian

community. We asked these people to help us present their viewpoints correctly, and to assure that our materials wouldn't be offensive to Indian students. The importance of Indian review is exemplified in a lesson we had planned to prepare using traditional Navajo stories. We did not know that it is appropriate to tell certain stories only in winter; recommending storytelling might have made Navajo students uncomfortable.

American Indians have strong feelings about archaeology, especially where human burials are concerned. They often have interpretations of the past and viewpoints on the use of sites and artifacts that are radically different from those of archaeologists. We decided that students should be aware that there is more than one perspective on an issue, and we would attempt to present both sides fully and neutrally. While it is too soon to know for certain, I believe we have built a more positive relationship with Indian people because of our desire to give them a voice in the curriculum.

The essence of an archaeology education program is to shape peoples' values regarding archaeological resources. We researched values development - how do people form values and how can set values be changed? We learned that people value what they feel a sense of ownership for. Students of different ages must be approached differently when teaching values, but kids are never too young to be taught valuing lessons. After students are sufficiently informed about an issue, they need to be given an opportunity to clarify and examine their values about it. And finally, the best education programs model affirmative responsible actions toward a problem or issue. For example, it is not effective to simply teach kids about environmental problems; they can easily become pessimistic and overwhelmed. Modeling a way to personally address the problem, such as starting a school recycling center, teaches kids that they can have an impact and be part of a solution to a problem.

In the Intrigue of the Past curriculum, we wove the theme of Utah's unique and special archaeological resources throughout, with the goal of building a sense of ownership and pride in Utah's past. We also wanted to instill respect for the heritage of American Indians. Four lessons specifically provide opportunity for students to clarify their values and choose a course of action in ethical dilemmas, with recommendations for tailoring the lessons to various aged students.

Modeling actions students could take proved more difficult, and mostly are on the order of reporting vandalism and being responsible site visitors. There is a true story included about a schoolboy who was responsible for saving the largest known Fremont site from destruction before it could be excavated. Fremont Indian State Park is there today, ultimately, because of a fourth grader's concern and action.

Current Status of the Archaeology Education Program

The curriculum notebooks were finished in June 1990. The first teacher workshop was held in July 1990 with 19 attending; a second workshop occurred in September with 17 teachers participating. Most of the teachers are testing lessons in their classrooms and will give us a formal evaluation and suggestions within the month. A third workshop is scheduled for the end of January 1991, and hopefully for every quarter thereafter.

The liaison with the Utah Museum of Natural History has proven to be enormously beneficial, both to the archaeology education program and for the Museum. We were able to utilize their advertising network and our association with them brought us a credibility that could have taken us, as newcomers, a long time to build on our own. Arranging for teachers to have credit for attending workshops, a strong incentive for them to attend, was

greatly facilitated with the State Office of Education through our Museum contact, Deedee O'Brien. The Museum filled a void in their teacher inservice offerings by giving us a venue for teaching the curriculum, and thereby expanded their clientele. Finally, the Museum is a fine environment for a workshop, since displays and artifacts are readily available, as is audiovisual equipment and a classroom.

Over fifty copies of the curriculum booklet went out for review in November, 1990. We sent them to people with whom we originally networked and others who have expressed interest along the way. Their review, as well as results of the teachers' piloting will be analyzed and the curriculum revised and readied for publication next summer. (The photocopied curriculum notebooks cost about \$13.50; printed versions will be less than \$2.00 a copy.)

Funding for the education program has been increased this fiscal year. Following our presentation to the Interagency Task Force in August, they have agreed to provide funding to hire an educator half-time for the year (Danielle Paterson is currently not available to work on the project), publish the curriculum, and purchase the 3-ring curriculum notebooks to use in the interim. The Washington BLM earmarked \$17,000 specifically for the archaeology education program, which will be used for workmonths for myself and Jeanne Moe, a formal review by a curriculum specialist, and travel for us to conduct facilitator training around the state (detailed below).

My primary concern through the whole process of building an archaeology education program is that we not only develop exemplary teaching materials, but that we also structure a means to sustain the program and have it widely used. Many of the archaeology education programs we reviewed in the initial phase of this project fell by the wayside because no means to keep them going were developed. A curriculum, no matter how wonderful, is of little use if

few people use it, and the framework for continuing the program is at least as important as developing materials in the first place.

An associated concern is how to get the curriculum in use throughout the state, especially in rural areas where most of the threatened cultural resources are. Deedee O'Brien of the Museum's Education Department approached me about jointly applying for a grant to fund a Teachers' Institute. The Utah Endowment for the Humanities granted us \$10,000 to implement the Institute, and will help pay for 80 teachers and social studies curriculum directors from Utah's 40 school districts to attend. The Institute will be for four days in June 1991, and will center around the Intrigue of the Past curriculum. Teachers will also be taught more intensive archaeology activities, such as tabletop digs, flintknapping, pottery making, and laboratory analysis, and can choose two fieldtrips to attend. Part of the requirement for participating in the Institute and receiving five credits is that teachers return to their home districts and cooperatively teach a workshop, with an archaeologist, to their fellow teachers. These teachers will be our contacts in school districts around the state, and hopefully will become nodes in our network and the base for subsequent regular workshops.

We are currently seeking third party cash donations, which we can use for a matching grant from UEH. The additional money is primarily to pay teacher stipends for conducting workshops. The grant is a great boost to the education program, enabling us to launch it statewide and build our foundation for sustaining the program over the long run.

The Tasks Ahead

In addition to preparing for the Institute, conducting workshops and revising the curriculum for publication, we plan to accomplish two other major tasks:

facilitator training and a curriculum for the secondary level. Facilitator training is for archaeologists who want to be involved in education. We will instruct them in the philosophy behind the curriculum's development, teaching workshops to teachers, and working with local schools. We will also share what we have learned about creating effective lesson plans and activities, and encourage people to develop lessons about their local cultural resources.

Trained archaeologists will then work with teachers who have been to the Institute to form a local means for hosting regular workshops and expanding the education program as fits their situation and resources.

Concomitant with the facilitator training, I want to build management support for archaeologists to be involved in education programs. Accommodation such as making overtime or compensatory time available for weekend workshops, and performance appraisal recognition for education efforts are important for encouraging archaeologists to be involved. The benefits to BLM's local public image can be tremendous, and adults who value cultural resources help us do our job more effectively and at less cost to law enforcement. I presented a summary of the archaeology education program to Utah's BLM State Management Team in June 1990, and most in attendance were supportive of the program in principle.

Developing the secondary level curriculum will require a different tactic than did the primary level. Students are not in one classroom with one teacher, and the fact that teachers are specialized by subject in secondary level schools means that we cannot attract any one of them to more than a fraction of a curriculum that is meant to be cross-curriculum. Working with educators and our contacts will help us determine the best means to appeal to secondary level teachers and students.

External Connections

Early networking has resulted in the archaeology education program receiving attention from several entities. Last February I was asked to be a member of BLM's education task force. I participated in a working meeting in Washington D.C., where we drafted a proposal for BLM's Natural Resources Outreach Education initiative.

I was invited to be a member of the Society of American Archaeology sub-committee on education, and two articles about the program are forth-coming in their newsletter, which has a nationwide distribution.

My association with SAA led to an invitation to make a presentation to the newly-formed Federal Preservation Forum in Washington D.C. in June of 1990. The FPF membership consists of archaeologists, historians, archivists and managers working in federal agencies. Implementing an education program seems to be a concern of most agencies, and those in attendance, then and since, have shown considerable interest in the progress of our program.

An article about the education program has been requested by the journal Women in Natural Resources, and I intend to submit that to them by the first of the year. We have also been involved in the education initiative Take Pride in Utah.

Personal Reflections

Having the opportunity to direct the archaeology education program has been tremendously rewarding and I have learned a great deal. Much of the success of the education program has hinged on having a broad base of support, both within and without BLM. Our early networking and concise communication

with managers proved essential in building and maintaining interest and backing.

The program enabled me to add a new dimension to my experience as a supervisor in two ways: delegation and firing. While I have supervised and hired people in several situations, I had not before approached a staff with a deliberate participatory management style. In some ways it is more challenging than a traditional pyramidal mode; it takes time to establish the working style of everyone working together to a common goal, and not everyone is comfortable working in that manner.

I was advised at Management and Leadership Training to delegate responsibility more, and while I feel I have been able to do that, it still causes me consternation. It is easier in the short-term to fix something myself than to describe the shortcomings of a person's work and give it back to do over. I have been successful in overcoming that tendency most of the time, and I continue to be aware of effective delegation.

Initially, I hired two educators; each appeared to have different strengths to contribute to the program. It became obvious early on that one of the women was very stubborn, uncooperative and self- rather than team-focused. I talked with her about being a more effective communicator and team player, and offered her some training videos on the subjects, which she refused. A few weeks later, when things had not improved, I asked her to resign. She would not allow that any part of the problems the team was experiencing could have anything to do with her, and I realized that there was no place from which we could even start to effect a change.

The decision to ask her to resign was a difficult one, and I understand why managers avoid making tough personnel decisions - in a way, it felt like a

failure on my part, since I had hired her in the first place. However, her behavior was threatening the success of the program, and her departure vastly improved morale and gave us back our energy for the work ahead.

Perhaps the most important point this project emphasized to me is that a person can make his or her own opportunities. Knowing what you want to do is a powerful asset; it gives direction and alertness to opportunities. I have wanted to do an archaeology education program since I began taking education classes in graduate school six years ago. My proactive decision to approach Kemp Conn with a proposal to implement the education aspect of the Task Force's agenda opened the door for me to ultimately direct this project. Kemp's support and encouragement, along with that of many other people, was essential and I don't mean to imply that I did this all myself. I believe, however, that I would not have been chosen to direct the program if I hadn't initiated the first proposal.

I am pleased that BLM is an agency where initiative and innovation are encouraged, and that managers are flexible to accommodate new directions in programs. In the Salt Lake District, both my Area Manager and District Manager have allowed me to shift my program emphasis, and have supported new arrangements, such as hiring a temporary archaeologist and delegating much of the fieldwork to the other area archaeologist, who also has been more than accommodating. The success of a new program rests on numerous shoulders, and the encouragement and help of so many has been meaningful and inspiring to me.

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